

ABSTRACT OF THE DISCLOSURE

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5 A digital communications link and protocol is disclosed in connection with a digital controller section and an analog CODEC section of an xDSL modem mounted on a computer motherboard. The xDSL modem is configured on the motherboard with the digital and analog sections separated so as to improve noise performance in the analog front end sections. The digital communications link is characterized by an improved architecture which includes optimally selected data signal lines, an embedded control channel, a flexible data clocking mechanism, capability for providing multiple data channels, and a preselected operational and/or control word format. These features allow

10 a computer motherboard fitted with the digital communications link to be easily adaptable and usable with a number of different combinations of digital and analog circuits associated with xDSL modems.

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